Statement of

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and

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on

Oil and Gas Resource Assessment Methodology

before the

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Committee on Resources
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Madam Chairman and Members of the Subcommittee, my name is Ray Seegmiller and I am the Chairman and Chief Executive Officer of Cabot Oil & Gas Corporation.

I'm extremely pleased to be with you today to address a critical issue which, unfortunately, is often misunderstood by members of Congress and Administration officials alike. It is the issue of how Cabot and the hundreds of other companies like Cabot, make decisions, which determine the supply of oil and natural gas to fuel our economy, generate our power and heat our homes.

In another way, it is a question of how we decide whether or where to explore with the hope of finding energy supplies.

Today, I speak not only for Cabot, but also for the Domestic Petroleum Council, an association of the producing community's 22 largest and most active independent exploration companies.

Continuing analysis of our domestic energy resource base, especially natural gas and the factors which restrict access to it, are extremely important in helping policymakers understand the direction we need to be moving to supply future demand.

The studies of the National Petroleum Council as well as ongoing studies by several Executive Branch agencies are very helpful to government and the general public with respect to resource assessments. Of particular use to the government and the public is analysis of specific restrictions on exploration and production. However, we also hear hypothetical and often illogical statements that are either confusing or simply irrelevant to those of us who make a living by putting at risk real dollars in the hope of finding real resources.

For example, statements to the effect that a large percentage of public lands are open to oil and natural gas leasing and development continually ignore the fact that only a portion of the most prospective areas may be available. Those who claim that we should not be concerned about access until we are sure that resource exploration and production will be economic; will only stifle development. Likewise, those who claim that issues regarding capital infrastructure, such as development of pipeline and gathering system capacity, should come before resolving access issues turn the decision making process totally upside-down.

We, the producers, must first believe, with confidence that we can access the resource prior to tackling those “down the line” issues. Think about it, without resource access there is no reason to resolve those other challenges. Nothing else matters unless there is an available resource to find, develop, and produce.

So, let me now do a quick summary of how we at Cabot Oil & Gas Corporation explore for natural gas and oil, regardless of the policy-oriented studies.

Cabot Oil & Gas Corporation is a domestic explorer and producer of natural gas with over 1.2 Tcfe of reserves. The Company’s four core areas are the onshore Gulf Coast, Appalachia, the Mid-Continent and the Rocky Mountains. In the Rocky Mountains we currently have over 500 natural gas wells, most of which are in Wyoming and we drill between 20-50 wells per year in that area. Mostly on federal lands in western Wyoming.

As an explorer for natural gas reserves for over 100 years Cabot Oil & Gas has worked with many of the other companies in our business. Each company’s approach to the exploration for natural gas is very consistent even though the final evaluation of potential reserves may differ.

What drives exploration success is primarily good geology. By this, I mean you need to acquire as much data about an area that is economically feasible and provides a reasonable expectation of making a discovery. This requires our confidence that we will have access to the acreage being studied.

Once we are confident we will have access, our geoscientists map the surface and sub-surface geology looking for clues that suggest the presence of hydrocarbons in reservoir quality rocks. To do this we utilize a variety of data including surface geologic maps, remote sensing techniques (i.e., gravity, magnetic and geochemical), electric logs from any well bores in the area and seismic data (both 2 dimensional and 3 dimensional). If the data is not available from outside sources we may have to hire contractors to do field work such as seismic surveys. Almost always we have to obtain permits to do this work even though we have access to the area under review. Being able to acquire this data on a timely basis is very important to the economics on any such project.

On a step by step basis, Cabot proceeds with an exploration project as follows:

1) Regional geologic analysis – In the area of interest and the region surrounding it what are the indications of hydrocarbon bearing formations.

2) Map the sandstone trends – Map the reservoir rock trends in the area and estimate their porosity and permeability by looking at outcrops, well bore data in the region (if any), etc. Sandstone pinchouts associated with effective seals could hold entrapped hydrocarbons.

3) Map the geologic structure - Map the simple anticlines, faults and structural trends. These could provide traps for hydrocarbon accumulation.

4) Develop lead ideas – From the previously completed data determine if there are areas that might potentially hold hydrocarbons.

5) Acquire seismic data, either 2-D or 3-D, over the potential hydrocarbon areas.

6) Map the seismic and integrate it into the subsurface geology previously prepared.

7) Determine those drilling prospects with the highest potential.

8) Determine the potential risk weighted rate of return for the total prospect including infrastructure and transportation costs.

9) If potential return is satisfactory at expected gas prices – apply for a drilling permit and comply with all environmental issues.

10) Drill the first well.

The cost of the first well in certain areas can be very expensive however, if the reservoir potential is perceived to be large enough we will take that risk. Once a discovery is made, the infrastructure to get the gas to market will be put in place if the prospect size justifies the additional costs. As in the movie <u>Field of Dreams</u> – "Build it and they will come". In this case if the discovery is large enough the infrastructure will come.

<u>The point I want to make is that without access to the acreage none of the above is possible.</u>

Cabot has followed this process in two recent cases on Federal lands where we acquired access. In each case there could have been an argument that infrastructure did not exist and there were no assurances of an economic resource. But, it's our job to take the resource risks, so the first case in the Paradox basin of southwest Colorado with our partners, we prepared the regional geologic analysis, followed with seismic acquisition, which resulted in the drilling of two significant producing wells, with more to follow. These discoveries more than justified the pipeline extension to get the gas to market. In another area we drilled a dry hole and we are now reviewing our geology using the new data from this well. Cabot alone has spent over $8 million in seismic and drilling on this 300,000 acre play so far.

In the Wind River Basin of central Wyoming, Cabot is currently preparing to drill the second wildcat well on a 60,000-acre block where we followed this same procedure. We did our basic homework in evaluating all the available surface and subsurface data, shot over 100 square miles of 3 dimensional seismic and then mapped several structural prospects. The well on the first prospect was dry. We will drill the second prospect his fall, which is a large structural trap that could hold substantial reserves. To date, Cabot alone has spent close to $3 million for acreage, seismic and well costs.

Finally, let me add a footnote before concluding my remarks. Despite the best efforts of the exploration and production sector or the government, our projections are often conservative when it comes to energy resources. We'll continue to be conservative because of the risks involved, but consider just two examples of the national benefit from companies that were willing to take the risk, and applying the latest technology, despite conservative – some would say pessimistic – resource estimates.

The initial reserve estimate for Alaska's Prudhoe Bay field, North America's largest oil field, was 9.6 billion barrels of technically recoverable oil based on a recovery factor of about 40 per cent. This field has now produced more than the original estimate and eventual recovery is now expected to exceed 65 per cent, or 15 billion barrels.

In the Green River Basin of Wyoming, a fledgling McMurry Oil Company managed to "bring to production" in 1992 two small wells that were more than thirty miles from the nearest gathering line. That field, the Jonah Field, now produces in excess of 700,000 mcf/day, enough gas to heat most of southern California on a cold winter day. During the first year of production, there was one summer month where the mainline price for gas was $1.14/MMBtu (meaning a wellhead netback price of less than $.75/MMBtu), but with improved pricing and strong production the area has been very economic. The average price for gas in the Green River Basin in 2001 was $3.65/MMBtu

In conclusion, we'll continue to do our best to apply the latest technology in the search for the nation's natural gas and oil. But we'll do it based on real-world information in areas where we believe we'll be able to access the resource and then be able to work with the federal, state and local governments, surface owners and users as well as others to ensure that what we do is environmentally sound and in our collective best interests.

Thank you for your attention. I'd be glad to answer any questions you may have.